EMBARGOED UNITL 20th NOVEMBER 2022 1730HRS SGT

APHRS and HRS Joint Session- Managing Brugada Syndrome

Context:

The session discussed regarding Brugada syndrome as well as its management strategies. It is noted based on the Japanese Brugada registry that the lethal cardiac event rate in asymptomatic patients with Brugada syndrome is 0.4%/year, 0.7%/year in those with previous syncope and 10.7%/year in those with ventricular fibrillation (VF) or asphyxiation cardiac arrest. Therefore, it is an important topic to evaluate to improve the clinical outcomes of these patients.

Summary:

Prof Koonlawee Nademanee shared regarding the utility of ablation for patients with Brugada syndrome. Based on his experience, normalization of Brugada ECG pattern after ablation helps to reduce the likelihood of future VF episodes in these patients. If future studies confirm this finding, perhaps patients with Brugada syndrome could potentially be treated without ICD insertion in certain subset populations.

Prof Wataru Shimizu shared regarding genetic testing for patients with Brugada syndrome. The presence of SCN5A mutation helps to risk stratify patients with Brugada syndrome. The other prognostication markers include those with previous syncope, family history of sudden cardiac death and inducible VF.

Dr Rafik Tadros shared regarding polygenic risk scores in Brugada syndrome, and that it is associated with the occurrence of a type 1 Brugada syndrome pattern. Based on multivariable regression analysis, 4 variables are independently associated with ajmaline-induced type 1 Brugada pattern. These 4 variables are Brugada syndrome polygenic score, family history of Brugada syndrome, Type 2/3 pattern on baseline ECG and QRS duration on baseline ECG. However polygenic risk scores needs further validation in geographically and ethnically diverse population. Moreover it only predicts type 1 ECG pattern, not arrhythmic outcome.

Dr Takeshi Aiba shared regarding pharmacological options for Brugada syndrome. Patients with spontaneous Brugada pattern ECG had poorer outcome compared to those with drug induced Brugada pattern ECG. Quinidine should be considered for patients with Brugada syndrome who are indicated to have ICD insertion but are not eligible candidates or declined device insertion. In patients with electric storm, isoproterenol can be considered.

Message:

1. Ablation for patients with Brugada syndrome can potentially be considered in certain subset populations.
2. There is a role for genetic testing, especially SCN5A mutation to risk stratify patients with Brugada syndrome. The other prognostication markers include those with previous syncope, family history of sudden cardiac death and inducible VF.
3. There may be a role for polygenic risk scores moving forward, but requires further validation

4. Quinidine should be considered for patients with Brugada syndrome who are indicated to have ICD insertion but are not eligible candidates or declined device insertion. In patients with electric storm, isoproterenol can be considered.

Session details:

Oral presentation. Symposium 8 APHRS and HRS Joint Session- Managing Brugada Syndrome. Sat Nov 19, 2022 1030-1140AM

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